

**N**EARLY 42 million people in the United States obtain their drinking water from private wells. As of August 2005 there were 155,042 registered wells serving Louisiana residents. Generally, the groundwater retrieved from wells is safe. However, poor construction or lack of maintenance of water wells can lead to water contamination resulting in severe health problems. Who is responsible for monitoring private water wells?

In Louisiana, governmental agencies do not monitor private water wells, it is the responsibility of the owner or user of the private water well to monitor and take every precaution in protecting their water supply. All costs associated with testing are the full responsibility of the owner or user of the private water well.

#### How do I protect my private well water supply?

In order to properly protect your household water, the activities near the water source must be managed.

This includes:

- Keeping all contaminants such as gasoline, pesticides, paint, solvents, and chemicals away from the well;
- Inspecting the well frequently for damage and discussing what you find with your water well driller;
- Sloping the area around the well to drain rainfall and surface water away from the well;
- Ensuring that the well is at least 50 feet away from sewage systems;
- Preventing backflow or cross-connections. To do this, maintain an air gap between the end of a water hose and standing water in the garden or in a household sink. A sudden loss of power or pressure can cause contaminated water to back-siphon into the well. Use check valves or anti-siphon valves where an air gap is not feasible. There are many other requirements for private water wells. These requirements can be found in Title 51, Part 12 of the Louisiana State Sanitary Code. Contact your local parish health unit to learn how you can obtain a copy, or go to the Louisiana Department of Health and Hospitals website at <http://www.dhh.louisiana.gov/offices/?ID=206>.

#### When do I test my water?

It is important to remember that taste and color are not an indication of safe water. Testing your water every year for total coliform bacteria and nitrates provides a good indication of the water's safety. However, there are other situations that warrant water testing.

These include:

- Contaminants found in a neighbor's water;
- A change in the odor, color, or taste of the water;
- A chemical spill near the well;
- A pregnant woman in the home;
- Unexplained illnesses in the household.

#### How do I test my water?

There are many resources available with information on getting your well water tested or whether testing is necessary.

- For a list of private certified water testing labs in Louisiana, you can contact the Office of Public Health's State Certification Officer at the number located in the contact section of this pamphlet. You can also contact other private water testing laboratories. They can be found in the yellow pages under "Environmental Services" or "Laboratories."
- Your local parish health unit or cooperative extension service office may also be contacted for further information. Their numbers can be found in the "Health," "Government," or "Louisiana State University" section of the phone book. See additional information about these services in the contact section of this pamphlet.

#### What contaminants should I test for?

Certain types of contaminants should be tested for on a regular basis.

These include:

- **Total Coliform Bacteria** originate in soil, vegetation or the intestinal tract of animals. Although these bacteria may not be harmful themselves, high levels may indicate the presence of other bacterial, viral, or parasitic pathogens.
- **Lead content** should be examined if household plumbing has lead pipe fittings, soldered joints, and/or brass fixtures. Excessive lead consumption can affect vital organs and is especially harmful to young children under seven years of age.
- **Nitrates** can cause health problems in infants less than 6 months of age. Thus, testing for nitrates is important if infants or expectant mothers consume the water. Research is being conducted to determine whether nitrate exposure is linked to chronic illnesses in adults. Nitrates are plant nutrients and could come from fertilizer, livestock, poultry, or septic tanks.
- **Volatile Organic Chemicals (VOCs)** are found in fuels, paints, and solvents and can cause organ damage. If the water smells like gasoline or fuel, if the well is near an abandoned gas or fuel storage tank, or if a chemical spill has occurred, the well should definitely be tested for the presence of VOCs.

- **Pesticides** can cause skin and eye irritations, respiratory problems, and other serious health conditions; therefore, a pesticide spill warrants a test of your water.



#### Sanitarian Services

Sanitarian Services within the Office of Public Health's Center for Environmental Health Services will test your private well water for total coliform bacteria for a fee of \$75.00. A sanitarian will collect a water sample from your home and deliver it to a state laboratory where the sample will be analyzed for total coliform bacteria. The results will be forwarded to you. In the event of a positive test, the sanitarian will contact you with suggestions for correcting the problem. After corrections are made, the well will be resampled and tested again. In addition, Sanitarian Services offers preventive information on how to keep well water safe. This informational service is available free of charge. For information about these services contact your local parish health unit. To locate your parish health unit visit: <http://www.dhh.louisiana.gov/offices/?ID=223>.

#### Registering Your Well

When installing a new private well for your home, the Louisiana Department of Transportation and Development (LDOTD) requires private wells be drilled by a licensed contractor and be registered upon completion. Furthermore, private wells must be constructed in accordance with LDOTD's Water Wells Rules, Regulations and Standards of the State of Louisiana. Upon receiving the well registration form, the LDOTD will enter the information into a statewide database, and a LDOTD representative will be sent to your home to inspect the well. LDOTD provides registration and inspection of new wells at no cost to the owner.



### How do I clean and disinfect my well after a flood?

After a flood, it is important to take every precaution to insure the safety of your well water. First, it is necessary to inspect and clean the well and pump before using them. You may want to have your water well driller or contractor check out the well before using it.

- Do not turn on the pump until an electrician or well contractor has checked the wiring. There is a risk of electrical shock! After the proper inspections have taken place, run the pump and discard the water until the well water runs clear.
- Most importantly, after a flood, you should disinfect the well. This can be accomplished by following the procedures outlined below; however, it is advisable to hire a well contractor to disinfect the well for you.
- Pump the well for several hours to reduce the cloudiness and contaminant levels in the water.
- Pour 4 gallons of a chlorine bleach solution into the well. Chlorine bleach solution consists of 1 gallon of bleach with 3 gallons of clean water. Open every faucet and pump the water until the water coming out of the faucet smells like chlorine, and then turn off each faucet. If you do not smell chlorine at the faucet, add a little more chlorine solution until the smell is detected.
- Let the system sit for 24 hours.
- Open the faucets and run the water until the chlorine smell disappears.
- Have the water sampled and tested. The water IS NOT safe for drinking until lab results show no indication of total coliform bacteria. You can discuss the final lab results with the lab or local parish health unit. It is important to remember that disinfection will not remove chemicals, which may have contaminated your well during a flood.



### Contact Numbers

#### For information on the LA Safe Drinking Water Program:

DHH/Office of Public Health  
Safe Drinking Water Program  
(225) 765-5038  
<http://www.dhh.louisiana.gov/offices/?ID=238>

#### EPA's Safe Drinking Water Hotline: 1-800-426-4791

<http://www.epa.gov/safewater/pwells1.html>  
<http://www.epa.gov/safewater/consumer/whatdo.html>

#### For information on Certified Laboratories:

DHH/Office of Public Health  
Laboratory Services  
1450 L&A Road, Metairie, Louisiana 70001  
(504) 219-4447

#### For information on chemicals & their health effects:

DHH/Office of Public Health  
Section of Environmental Epidemiology & Toxicology  
1450 L & A Road, Metairie, Louisiana 70001  
(504) 219-4586 or 1-888-293-7020

#### For a list of Parish Extension Offices:

[http://www.agctr.lsu.edu/en/our\\_offices/parishes/](http://www.agctr.lsu.edu/en/our_offices/parishes/)  
or check your local telephone book

#### For additional information on private wells:

National Groundwater Association  
1-800-551-7379  
<http://www.wellowners.org>

#### For information on registering your well:

LA Department of Transportation and Development  
Public Works and Water Resources Division  
Water Resources Section  
P.O. Box 94245, Baton Rouge, LA 70804-94245  
(225) 274-4172  
<http://www.dotd.louisiana.gov/intermodal/wells>

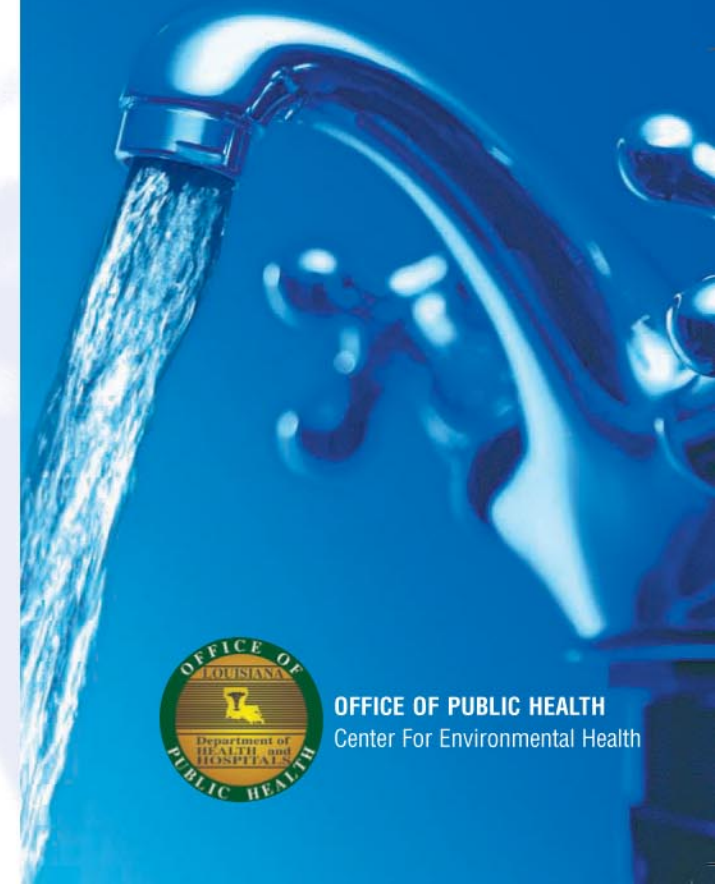
### References:

EPA: Office of Water: *Guidance for What to Do After a Flood*  
EPA: Office of Water: *Private Drinking Water Wells*  
National Well Owners Association: *Protecting Your Own Water Supply*  
Louisiana Cooperative Extension Service: *Water Well Protection Fact Sheets*  
Louisiana Cooperative Extension Service: *Home\*A\*Syst*

This public document was published at a total cost of \$5,044.16. 25,000 copies of this public document were published in this second printing at a cost of \$3,000.00. The total cost of all printing of this document including reprints is \$5,044.12. This document was produced by DHH/Office of Public Health, P.O. Box 3214, Baton Rouge, LA 70821. It was printed in accordance with the standards for printing by State Agencies established pursuant to R.S. 43:31.

# Private Water Well Testing in Louisiana

What You Need  
to Know to Protect  
Your Water



OFFICE OF PUBLIC HEALTH  
Center For Environmental Health